

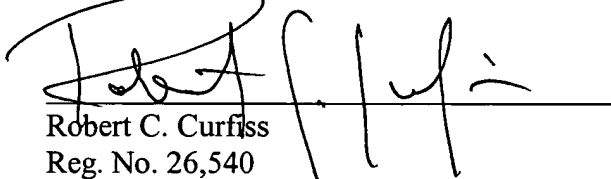
REMARKS

Applicant respectfully requests that this amendment/response be considered by the Examiner and a notice of allowance be entered.

Applicant amended the claims to clarify the structure which applicant believes distinguishes the invention over the cited references, to clarify the functions of the claimed invention, and to clarify the limitations within the claims drawn to such structure. However, amendments have not been made to narrow the claims of the original application but, rather simply, to clarify claims due to grammar that the Examiner found unclear.

If the Examiner feels that a telephone conference with the undersigned would be helpful to the allowance of this application, a telephone conference is respectfully requested.

Respectfully submitted,
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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service, with sufficient postage as First Class Mail (37 CFR 1.8(a)), in an envelope addressed to Mail Stop Response/FEE, Commissioner of Patents and Trademarks, P.O. Box 1450, Alexandria, VA, 22313-1450.

Date: June 9, 2004



Renee Treider

ARGUMENT

In the office action dated March 12, 2004, the Examiner objected to the Drawings because Figure 1 requires a legend stating "PRIOR ART". The Examiner also objected to the Specification because the title of the invention was not descriptive so that it is clearly indicative of the invention to which the claims are directed. The Examiner rejected claims 1-6, 18, 21, 24, 29-31, 35, 38, 42 and 43 under 35 U.S.C. §102(b) as being anticipated by Bailey et al. (US 4,646,140). Additionally, the Examiner rejected claim 34 under 35 U.S.C. §102(b) as being anticipated by Sefton et al. (WO 90/05426). The Examiner also rejected claims 44 and 45 under 35 U.S.C. §102(e) as being anticipated by Hieda (US 5,995,141). The Examiner also rejected claims 7-10, 25, 32, and 41 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Gaebele et al. (US 3,691,302). Additionally, the Examiner rejected claims 11-13 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Sefton et al. Additionally, the Examiner rejected claims 26 and 27 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Sefton et al. in further view of Gaebele et al. The Examiner also rejected claims 19, 20, 36 and 37 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Hieda. The Examiner rejected claims 17, 22 and 23 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. The Examiner objected to claims 14-16 as being dependent upon a rejected base claim, but said they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Finally, the Examiner allowed claims 33, 39 and 40.

Drawings:

A legend entitled as “PRIOR ART” has been added to Fig. 1 such that it now conforms with MPEP §608.02(g). Figure 1 illustrates only that which is old.

Specification:

The title of the invention is replaced with “A Dual-Mode Camera System for Day/Night or Variable Zoom Operation” so that the title is more descriptive and is clearly indicative of the invention to which the claims are directed. This title is indicative of the invention to which the claims are directed because these claims are directed towards a day/night camera system or a variable zoom operation camera system.

35 U.S.C. §102(b):

Claims 1-45 are pending in the application. In the Office Action dated March 12, 2004, the Examiner rejected claims 1-6, 18, 21, 24, 29-31, 35, 38, 42 and 43 under the provisions of 35 U.S.C. §102(b), taking the position that those claims are anticipated by U.S. Patent No. 4,646,140 to Bailey et al. Additionally, the Examiner rejected claim 34 under 35 U.S.C. §102(b), taking the position that the claim is anticipated by WO 90/05426 to Sefton et al.

Applicant traverses these rejections and respectfully requests reconsideration and withdrawal since the now recited limitations of Applicant’s claims are neither taught, suggested, nor anticipated by Bailey et al. or Sefton et al.

Regarding claim 1, Applicant has amended the claim to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification. The entire surface of the beam-splitting mirror, as used in Applicant's invention, is entirely partially-reflective and entirely partially-transmissive. For example, on page 4, lines 21-25, the Specification states that a mirror can be chosen in which 90% of the intensity of the light may be transmissive and 10% of the intensity of the light may be reflective. Conversely, a different mirror can be chosen in which 90% of the intensity of the light may be reflective and 10% of the intensity of the light may be transmissive. However, in the cited reference Bailey et al., the patent discloses on column 3, lines 39-42, and on column 5, lines 19-23, that a fixed semi-silvered mirror is used to reflect half the light along one pathway while allowing the rest to proceed through the mirror along a second pathway. The semi-silvered mirror operates as if there are two mirrors manufactured into one mirror. The silver-side of the mirror reflects 100% of the intensity of the light to one CCD sensor and the non-silver-side of the mirror allows 100% of the intensity of the light to proceed through it to another CCD sensor. The now amended independent claim 1 distinguishes this difference between Applicant's invention and the Bailey et al. invention. Also, in Applicant's invention, a particular beam-splitting mirror is chosen to determine how much of the light intensity is transmissive and how much light intensity is reflective. In the Bailey et al. invention, the electro-optic polarizers (EOP) controls the light going to the two CCD sensors. Thus, in Applicant's invention, the beam-splitting mirror, and not the EOP, determines the intensity of the light which is transmitted. The amended independent claim 1 now states that the mirror determines/creates different intensities of the beam. Amended independent claim 1 should now be in acceptable form. Independent claim 1 is no longer taught, suggested, nor anticipated by Bailey et al.

Regarding claim 2, this claim depends on independent claim 1. Since independent claim 1 has been amended to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification, it is now in allowable form because it is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 2, which is dependent on now allowable independent claim 1, should also be in allowable form. Claim 2 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 3, the Examiner stated that Bailey et al. teaches this claim on Column 1, lines 19-21. The Applicant's claim states that the beam-splitting mirror splits the beam into a high ambient lighting beam and a low ambient lighting beam. However, in the Bailey et al. patent, on column 1, lines 19-21, it states that it is common practice to employ two different types of camera and sensor (one for daytime, and one for nighttime). This is only background material which states solutions to daytime vs. nighttime cameras in the prior art. Applicant's invention uses only one camera and not two. Also, nowhere in column 1, lines 19-21 does it state that there is a mirror which splits a beam into two different ambient lighting beams. In fact, the Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror, but it does not split the light into a high ambient lighting beam and a low ambient lighting beam. As discussed in regards to claim 1, this embodiment splits the light into two different directions, but the intensity of the light in both directions are the same. Thus, claim 3 is in acceptable form as is. Also, since this claim depends on now allowable independent claim 1, it should also be in allowable form. Claim 3 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claims 4 and 5, Applicant claims that either both image sensors are a digital image device or at least one image sensor is a digital image device. The Examiner states that Bailey et al. teaches these claims on Column 2, lines 60-68. However, Column 2, lines 60-68 state that the sensor

is a solid-state image sensor, which is a front-illuminated, visible-light, frame transfer, charge coupled device. The sensor used in Bailey et al.'s invention is not digital. Support for this sensor not being digital in Bailey et al. is found in the title and in the context that his disclosure provides. The title of his invention is "Television cameras". The Bailey et al. patent was issued in 1987. He was not referring to digital televisions in his patent because they were not available at that time. Also, on Column 5, lines 7-11, the Bailey et al. patent states that the CCD sensors are organized so that their outputs are suitable for use with a conventional TV display system. A conventional TV display system refers to an analog television display unit with fewer lines of resolution than a digital television. For these reasons, it is shown that Bailey et al. did not contemplate the use of digital sensors at the time this patent application was filed. Therefore, Applicant's claims 4 and 5 should be in allowable form. They are not taught, suggested, nor anticipated by the Bailey et al. patent. Also, claims 4 and 5 depend on independent claim 1. Since independent claim 1 has been amended to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification, it is now in allowable form because it is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claims 4 and 5, which is dependent on now allowable independent claim 1, should also be in allowable form. Claims 4 and 5 are neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 6, the Examiner stated that Bailey et al. teaches this claim on Column 4, lines 4-15, and Column 5, lines 7-14. First, column 5, lines 7-14 does not state that a singled data bus is used for transmitting the data collected by the sensors. Column 5, lines 7-14, only states that the output from the sensor is compatible with a conventional TV display system. The Examiner states that both sensors share the same data line to transmit the data, but that is not stated anywhere in the disclosure. Also, Figure 1 does not show that a data bus is being used, but in fact shows that there is a display associated with each sensor. The Bailey et al. patent is not indicative of this claim

and is using two different hardwire lines to provide the output to the different displays. Additionally, Applicant's claim 6 discusses a means for enabling and disabling alternative of the sensors in order to assure only one image sensor is transmitting data on the bus at any time. Column 4, lines 4-15 in the Bailey et al. patent does discuss this means for enabling or disabling alternative of the sensors, but it does so with reference to moving the optical components. When the Bailey et al. patent uses the embodiments with movable optical components, those embodiment do not split the light as indicated in Applicant's claim 1, in which Applicant's claim 6 depends on. There is only one embodiment of the Bailey et al. patent which splits the light into two different directions. The relevant embodiment uses the fixed semi-silvered mirror. However, as discussed above, this embodiment splits the light into two different directions, but the intensity of the light in both directions are the same. Applicant's invention uses a mirror which changes the intensities going to the two different paths. The Bailey et al. patent does not discuss the means for enabling or disabling alternative of the sensors in reference to the semi-silvered mirror embodiment. Thus, claim 6, is in acceptable form as is. Also, since this claim depends on now allowable independent claim 1, it should also be in allowable form. Claim 6 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 18, the Examiner states that Bailey et al. teaches this claim. The Examiner states that it is inherent that Bailey et al. includes a processor for controlling the scanning of the image of the digital sensor and producing an output signal. Applicant respectfully disagrees with Examiner's position. As shown in the above discussion regarding claims 4 and 5, it has been shown that Bailey et al. does not use a digital image device for its sensors. The time frame for Bailey's et al.'s invention and his use of the camera with conventional televisions provide support for Applicant's position. Applicant further believes that if the Bailey et al. patent did contemplate the

use of digital image devices, the word “digital” would have been stated somewhere within his disclosure. Since the word “digital” does not appear anywhere in his disclosure, it should not be assumed that he contemplated using digital image devices for his sensors. Therefore, Applicant’s claim 18 should be in allowable form. Claim 18 is not taught, suggested, nor anticipated by the Bailey et al. patent. Additionally, claim 18 depends on dependent claim 6 which then depends on currently amended independent claim 1. Since independent claim 1 has been amended to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification, it is now in allowable form because it is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 18 should also be in allowable form. Claim 18 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 21, this claim depends on currently amended independent claim 1. Since independent claim 1 has been amended to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification, it is now in allowable form because it is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 21, which is dependent on now allowable independent claim 1, should also be in allowable form. Claim 21 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 24, Applicant has amended this independent claim to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification. The arguments made with respect to claim 1 are applicable for the allowance of independent claim 24, since they are very similar. Also, the arguments made with respect to claim 6, in regards to the switch, are also applicable for the allowance of claim 24. To summarize, the Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror to split the light into different directions. As discussed in regards to claim 1, even though this embodiment splits the light into two

different directions, the intensity of the light in both directions are the same. Applicant's invention uses a beam-splitting mirror, which not only splits the light into two different directions, but also changes the intensity of the distributed beam. Therefore, claim 24 is neither taught, suggested, nor anticipated by Bailey et al. Additionally, the Bailey et al. patent discusses a switch mechanism with respect to embodiments with movable optical components. Those embodiments do not split the light as indicated in Applicant's claim 24. There is only one embodiment of the Bailey et al. patent which splits the light into two different directions, which is the one that uses the fixed semi-silvered mirror. The Bailey et al. patent does not discuss the means for enabling or disabling alternative of the sensors in reference to the semi-silvered mirror embodiment. For these reasons, claim 24 should now be in acceptable form. Currently amended claim 24 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 29, Applicant has amended this independent claim to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification. The arguments made with respect to claim 1 are applicable for the allowance of independent claim 24, since they are very similar. To summarize, the Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror to split the light into different directions. As discussed in regards to claim 1, even though this embodiment splits the light into two different directions, the intensity of the light in both directions are the same. Applicant's invention uses a beam-splitting mirror, which not only splits the light into two different directions, but also changes the intensity of the distributed beam. For these reasons, claim 29 should now be in acceptable form. Currently amended claim 29 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claim 30, the Examiner states that Bailey et al. teaches this claim on Column 4, lines 10-15, Column 5, lines 7-25, and Column 4, lines 53-57. Applicant respectfully disagrees with

Examiner's position. Specifically, the Examiner states that Column 4, lines 53-57 teaches the part of Applicant's claim which states, "at least one relay lens adapted to transfer the intensified portion of the distributed beam to at least one of the sensors. This means that the relay lens is positioned between the image intensifier and one of the sensors, and functions to relay the image from the back of the image intensifier to the sensor. However, Column 4, lines 50-57, actually states that the sensor is mounted on the exit window of the image intensifier. Thus, the Bailey et al. patent does not teach, suggest, or anticipate the use of relay lens positioned between the image intensifier and the sensor, as is stated in Applicant's claim 30. Thus, claim 30 should be in allowable form.

Regarding claim 31, Applicant has amended this independent claim to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification. The arguments made with respect to claim 1 are applicable for the allowance of independent claim 31, since they are very similar. To summarize, the Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror to split the light into different directions. As discussed in regards to claim 1, even though this embodiment splits the light into two different directions, the intensity of the light in both directions are the same. Applicant's invention uses a beam-splitting mirror, which not only splits the light into two different directions, but also changes the intensity of the distributed beam. For these reasons, claim 31 should now be in acceptable form. Currently amended claim 31 is neither taught, suggested, nor anticipated by Bailey et al.

Regarding claims 35 and 38, the Examiner states that Bailey et al. teaches these claims. For claim 35, the Examiner states that it is inherent that Bailey et al. includes a processor adapted to control a scanning of the digital image sensors, receive the scanned portions of the distributed beam, and produce an output based on the received portions. For claim 38, the Examiner states that it is inherent that Bailey et al. includes a processor adapted to control a scanning of the digital image

sensors, wherein the scanning can occur in at least one of the following order: reverse-pixel and reverse line, and the processor is adapted to produce an output based on the scanning. Applicant respectfully disagrees with Examiner's position. As shown in the above discussion regarding claims 4 and 5, it has been shown that Bailey et al. does not use a digital image device for its sensors. The time frame for Bailey's et al.'s invention and his use of the camera with conventional televisions provide support for Applicant's position. Applicant further believes that if the Bailey et al. patent did contemplate the use of digital image devices, the word "digital" would have been stated somewhere within his disclosure. Since the word "digital" does not appear anywhere in his disclosure, it should not be assumed that he contemplated using digital image devices for his sensors. Additionally, the Bailey et al. patent does not state that a processor is used to scan in a reverse-pixel and/or a reverse-line order. However, claim 38 states that Applicant's invention includes a processor capable of performing these various scanning orders. Therefore, Applicant's claims 35 and 38 should be in allowable form. Claims 35 and 38 are not taught, suggested, nor anticipated by the Bailey et al. patent.

Regarding claim 42, the Examiner states that Bailey et al. teaches this claim on Column 4, lines 10-15, Column 5, lines 7-25, and Figure 2B. Applicant respectfully disagrees with Examiner's position. Specifically, the Examiner states that the Bailey et al. patent discloses the use of a mirror which can receive and distribute a beam to two image sensors located in different paths. Additionally, the Examiner states that the Bailey et al. patent utilizes two different relay lenses of different magnifications in the two different paths. Unfortunately, the Examiner is combining two different embodiments to attempt to get this disclosure. Even then, this attempt fails to anticipate Applicant's invention. In the embodiment using the semi-silvered mirror, there are no relay lenses used. The semi-silvered mirror only distributes the light in two different directions, but the intensity

of the light remains at 100%. The EOP then controls the light going to the two image sensors. In another embodiment of the Bailey et al. patent, fixed focus lenses are used in only one pathway of the reflected light. In this embodiment, a method is used to sense the amplitude of the video signal output level from one or other of the two sensors (whichever is currently “on”) and use this to control the switchover of the mirror. Hence, the mirror moves into and out of the optical pathway to reflect the beam or allow it to pass through. This mirror does not split the beam into two different directions, as does Applicant’s claim states. Additionally, the lenses used in the Bailey et al. patent are not relay lenses which comprise a magnification ratio. Finally, Applicant’s claim states that the two different light portions may be at least one of the following options: similar, dissimilar, different magnifications, and similar resolutions. In the only embodiment of the Bailey et al. patent which splits the light, the two portions of the light are identical with the exact same intensity of 100%. For the above reasons, Applicant’s claim 42 is not taught, suggested, nor anticipated by the Bailey et al. patent. Therefore, claim 42 should be in allowable form.

Regarding claim 43, the Examiner stated that Bailey et al. teaches this claim on Column 4, lines 10-15, Column 5, lines 7-25, and in Figure 2B. Applicant has amended the claim to clarify that the two portions of the distributed beams are of different ambient lighting; one being low and the other being high. Applicant’s currently amended claim 43 should now be in acceptable form based on the argument presented above regarding claim 3. The Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror to split the light, but it does not split the light into a high ambient lighting beam and a low ambient lighting beam. In fact, this embodiment splits the light into two different directions with the same intensity of the light in both directions. Therefore, claim 43 is no longer taught, suggested, nor anticipated by Bailey et al.

Regarding claim 34, the Examiner stated that Sefton et al. teaches the claim in the abstract, Figure 1, and on Page 5. Applicant respectfully disagrees with Examiner's findings. First, the Applicant claims a plurality of cameras, each comprising a single lens system, a beam-splitting mirror, a plurality of sensors, and a switch adapted to select an output from at least one of the sensors. Sefton et al. does not teach the use of a plurality of cameras, but teaches the use of only one camera. The Examiner has misinterpreted Sefton et al.'s patent when he cites the numbers 8 and 9 as designating the plurality of cameras. Numbers 8 and 9 are associated with the electronics for each of the two different sensors which are used in the single camera. These electronics are used to form an output which is capable of being displayed. Secondly, the Applicant also claims a multiplexer, operably coupled to the cameras, adapted to select at least one of the cameras. Sefton et al. does not teach the use of a multiplexer adapted to select at least one of the cameras. In fact, the box designated with a number 10, which the Examiner has cited for this claim limitation, is used to select an output from at least one of the sensors from a single camera unit. Since the Sefton et al. patent only discusses the use of a single camera unit, it does not teach, suggest, nor anticipate Applicant's claim 34. Therefore, claim 34 should be in allowable form.

35 U.S.C. §102(e):

Claims 1-45 are pending in the application. In the Office Action dated March 12, 2004, the Examiner rejected claims 44 and 45 under the provisions of 35 U.S.C. §102(e), taking the position that those claims are anticipated by U.S. Patent No. 5,995,141 to Hieda.

Applicant traverses these rejections and respectfully requests reconsideration and withdrawal since the now recited limitations of Applicant's claims are neither taught, suggested, nor anticipated by Hieda.

Regarding claims 44 and 45, the Examiner stated that Hieda teaches the claims in Figure 1 and on Column 3, lines 44-53. For claim 44, the Examiner states that Hieda discloses a method for stabilizing an image produced by a sensor by measuring an angular acceleration in two orthogonal axes parallel to an axis of the sensor, by twice integrating the angular acceleration in the orthogonal axes, and by temporarily offsetting scan timing signals based on the measuring and the integrating. However, Hieda does not teach temporarily offsetting the scan timing signals based on the measuring and the integrating. Hieda utilizes a frame memory and a screen memory, whereby the screen memory is larger than the frame memory. The pick-up image data is stored in the frame memory and a larger image picked up in the wide range by panning or tilting is stored in the screen memory. The frame memory is then combined into the screen memory to produce a larger image with minimal distortions because the screen memory already has the larger image in it. The invention in Hieda is to provide larger printouts with higher quality than prior art methods. On the other hand, as disclosed in claims 44 and 45, Applicant's invention can temporarily offset scan timing signals based on the measuring and the integrating (claim 44) or it can generate an address offset in at least one read address used to access either an image array and/or a buffer of the image array (claim 45). Since Hieda does not use buffering, temporarily offsetting the scan timing, to provide a method to stabilize an image produced by a sensor, it does not teach, suggest, nor anticipate Applicant's claims 44 and 45. Therefore, claims 44 and 45 are in allowable form.

35 U.S.C. §103(a):

Claims 1-45 are pending in the application. In the Office Action dated March 12, 2004, the Examiner (1) rejected claims 7-10, 25, 32, and 41 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Gaebele et al. (US 3,691,302); (2) rejected claims 11-13 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Sefton et al.; (3) rejected claims 26 and 27 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Sefton et al. in further view of Gaebele et al.; (4) rejected claims 19, 20, 36 and 37 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al. in view of Hieda; and (5) rejected claims 17, 22 and 23 under 35 U.S.C. §103(a) as being unpatentable over Bailey et al.

Applicant traverses these rejections and respectfully requests reconsideration and withdrawal since the now recited limitations of Applicant's claims are neither taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al., Bailey et al. in view of Sefton et al., Bailey et al. in view of Sefton et al. in further view of Gaebele et al., Bailey et al. in view of Hieda, or Bailey et al.

Regarding claim 7, the Examiner states that the claim is unpatentable over Bailey et al. in view of Gaebele et al. Specifically, the Examiner states that Bailey et al. discloses the entire claim 6 and Gaebele et al. teaches the use of an iris and iris driver to vary the amount of light that is incident onto the image sensor. However, Applicant's claim 6 is dependent upon currently amended independent claim 1 which has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. Additionally, the discussions in regards to claim 6 above, with respect to a singled data bus and the means for

selecting one of the sensors to transmit, is applicable here. For these reasons, claim 7 is no longer taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al. Thus, claim 7 should be in acceptable form.

Regarding claim 8, the Examiner states that the claim is unpatentable over Bailey et al. in view of Gaebele et al. Specifically, the Examiner states that Bailey et al. discloses the entire claim 6 and Gaebele et al. teaches the use of an iris and iris driver to vary the amount of light that is incident onto the image sensor. However, the Examiner used this argument in connection with claim 7. Applicant's claim 8 is different than claim 7. Claim 8 utilizes the iris and controller to increase the dynamic range of each sensor through selective iris control. Additionally, Applicant's claim 6 is dependent upon currently amended independent claim 1 which has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. Furthermore, the discussions in regards to claim 6 above, with respect to a singled data bus and the means for selecting one of the sensors to transmit, is applicable here. For these reasons, claim 8 is not taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al. Thus, claim 8 should be in acceptable form.

Regarding claims 9 and 10, the Examiner states that these claims are unpatentable over Bailey et al. in view of Gaebele et al. Specifically, the Examiner states that Gaebele et al. further teaches that the iris comprises of an iris driver and iris actuator. However, Applicant's claim 9 is dependent upon claim 7, which is dependent upon claim 6, which is dependent upon currently amended independent claim 1. Also, Applicant's claim 10 is dependent upon claim 8, which is dependent upon claim 6, which is dependent upon currently amended independent claim 1.

Independent claim 1 has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. Additionally, the discussions in regards to claim 6 above, with respect to a singled data bus and the means for selecting one of the sensors to transmit, is applicable here. For these reasons, claims 9 and 10 are no longer taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al. Thus, claims 9 and 10 should be in acceptable form.

Regarding claim 25, Applicant has amended this independent claim to clarify the function/properties of the beam-splitting mirror which is disclosed in the Specification. The arguments made with respect to claim 1 are applicable for the allowance of independent claim 25, since they are very similar. To summarize, the Bailey et al. patent has only one embodiment which uses a fixed semi-silvered mirror to split the light into different directions. As discussed in regards to claim 1, even though this embodiment splits the light into two different directions, the intensity of the light in both directions are the same. Applicant's invention uses a beam-splitting mirror, which not only splits the light into two different directions, but also changes the intensity of the distributed beam. Therefore, claim 25 is neither taught, suggested, nor anticipated by Bailey et al. For these reasons, claim 25 should now be in acceptable form. Currently amended claim 25 is neither taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al.

Regarding claim 32, Applicant has amended this independent claim to clarify the function/properties of the first and second irises and the image intensifier. Claim 32 is very similar to already accepted claims 14 and 15. In Applicant's invention, the first iris is positioned between the primary lens and the beam-splitting mirror. The image intensifier is positioned between the

beam-splitting mirror and one of the image sensors. The second iris is positioned between the image intensifier and the same image sensor associated with the image intensifier. In the cited reference, Bailey et al. uses EOPs located at the sensors to control the light. There are no light controllers used before the light hits the mirror, as there is in Applicant's claim 32. Also, the cited reference Gaebele et al. does not disclose utilizing a light controller before the light hits the mirror. Therefore, claim 32 is neither taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al. For these reasons, claim 32 should now be in acceptable form.

Regarding claim 41, Applicant has amended this independent claim to clarify the function/properties of the first and second irises and the image intensifier. Claim 41 is very similar to already accepted claims 14 and 15 and pending claim 32. In Applicant's invention, the first iris is positioned between the primary lens and the beam-splitting mirror. The image intensifier is positioned between the beam-splitting mirror and the first image sensors. The second iris is positioned between the image intensifier and the first image sensor. In the cited reference, Bailey et al. uses EOPs located at the sensors to control the light. There are no light controllers used before the light hits the mirror, as there is in Applicant's claim 41. Also, the cited reference Gaebele et al. does not disclose utilizing a light controller before the light hits the mirror. Additionally, the Examiner states that it is inherent that Bailey et al. includes a processor adapted to control a scanning of the image sensors and produce an output based on the scanning. Applicant respectfully disagrees with Examiner's position. As shown in the above discussion regarding claims 4 and 5, it has been shown that Bailey et al. does not use a digital image device for its sensors. The time frame for Bailey's et al.'s invention and his use of the camera with conventional televisions provide support for Applicant's position. Applicant further believes that if the Bailey et al. patent did contemplate the use of digital image devices, the word "digital" would have been stated somewhere within his

disclosure. Since the word “digital” does not appear anywhere in his disclosure, it should not be assumed that he contemplated using digital image devices for his sensors. Finally, Applicant’s claim 41 states that the iris’s actuator is under the control of the same processor, which the Examiner has not mentioned in the office action. Bailey et al. nor Gaelebe et al. teach a processor for controlling the iris, scanning of the image sensors, and producing an output based on the scanning. For the above reasons, claim 41 is neither taught, suggested, nor anticipated by Bailey et al. in view of Gaebele et al. Therefore, claim 41 should now be in acceptable form.

Regarding claims 11-13, the Examiner states that these claims are unpatentable over Bailey et al. in view of Sefton et al. Specifically, the Examiner states that Sefton et al. teaches in the abstract and on Page 5, paragraph 3 that it is advantageous when designing a Day/Night camera to have one of the image sensors be a color image sensor and the second image sensor that is connected to an image intensifier be a monochrome image sensor. However, the Examiner misstated the disclosure of the Sefton et al. patent. The Sefton et al. patent discloses the use of a color sensor and an IR sensor. The mirror in the Sefton et al. patent splits the light according to the wavelengths. The light is split into visible light (400 – 700 nanometers) and infrared light (700 – 900 nanometers). Applicant’s invention uses a mirror which reflects a different intensity of the light, not for separating light into a visible component and an IR component. A monochrome sensor still senses light in the visible spectrum range, but an IR sensor senses light in the IR range. Therefore, a monochrome sensor is not the same as an IR sensor. For these reasons, claims 11-13 should be allowable. Claims 11-13 are neither taught, suggested, nor anticipated by Bailey et al. in view of Sefton et al. Additionally, Applicant’s claims 11-13 are all ultimately dependent upon currently amended independent claim 1. Independent claim 1 has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam

into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. For these reasons, claims 11-13 are not taught, suggested, nor anticipated by Bailey et al. in view of Sefton et al. Thus, claims 11-13 should be in acceptable form.

Additionally, Applicant's claim 13 utilizes a relay lens positioned between the image intensifier and the monochrome sensor. The Examiner states that Sefton et al. teaches on Page 5, paragraph 3 that the image intensifier can be coupled to the monochrome image sensor by a fiber optic bundle or lens coupling. The Examiner views this lens coupling as a relay lens positioned between the image intensifier and the monochrome sensor. However, the Examiner erroneously concludes that a lens coupling is the same as a relay lens. A lens coupling is a type of connector used to link fibers together. Connectors must ensure a low loss even after a large number of plugging and unplugging procedures. Also, the connection must cause as little reflection as possible. In addition to lens coupling, there are many different types of connectors that are available. For example, regarding the shape of the fiber end, one can distinguish between cylindric, bionic, and lens coupling connectors. However, a relay lens is a lens that relays the image from the back of the intensifier to the image sensor. Thus, a lens coupling is not the same as a relay lens. For this reason, as well as the reasons provided in the paragraph immediately above, claim 13 should be in acceptable form. Claim 13 is not taught, suggested, nor anticipated by Bailey et al. in view of Sefton et al.

Regarding claims 26 and 27, the Examiner states that these claims are unpatentable over Bailey et al. in view of Sefton et al. in further view of Gaebele et al. Specifically, the Examiner states that Sefton et al. teaches in the abstract and on Page 5, paragraph 3 that it is advantageous when designing a Day/Night camera to have one of the image sensors be a color image sensor and

the second image sensor that is connected to an image intensifier be a monochrome image sensor. However, the Examiner misstated the disclosure of the Sefton et al. patent. The Sefton et al. patent discloses the use of a color sensor and an IR sensor. The mirror in the Sefton et al. patent splits the light according to the wavelengths. The light is split into visible light (400 – 700 nanometers) and infrared light (700 – 900 nanometers). Applicant's invention uses a mirror which reflects a different intensity of the light, not for separating light into a visible component and an IR component. A monochrome sensor still senses light in the visible spectrum range, but an IR sensor senses light in the IR range. Therefore, a monochrome sensor is not the same as an IR sensor. For these reasons, claims 26 and 27 should be allowable. Claims 26 and 27 are neither taught, suggested, nor anticipated by Bailey et al. in view of Sefton et al. in further view of Gaebele et al.

Regarding claims 19 and 20, the Examiner states that these claims are unpatentable over Bailey et al. in view of Hieda. However, claims 19 and 20 are dependent upon dependent claim 18, which is dependent upon dependent claim 6, which is dependent upon currently amended independent claim 1. Therefore the arguments presented in regards to dependent claims 18 and 6 are also applicable here. Additionally, independent claim 1 has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. For these reasons, claims 19 and 20 are no longer taught, suggested, nor anticipated by Bailey et al. in view of Hieda. Thus, claims 19 and 20 should be in acceptable form.

Additionally, regarding claim 20, the Examiner has taken Official Notice of the fact that it is well-known in the art at the time the invention was made that gyroscopic acceleration sensors were used in cameras to detect angular accelerations of the camera. According to MPEP §2144.03, it

states that it would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. Applicant argues that the use of gyroscopic acceleration sensors to detect angular accelerations of the camera is a technical fact in the area of esoteric technology. Thus, documentation is required in this instance. For the reasons listed above and in the immediate preceding paragraph, claim 20 should be allowed since it is neither taught, suggested, nor anticipated by the cited Bailey et al. patent in view of the Hieda patent.

Regarding claims 36 and 37, the Examiner states that these claims are unpatentable over Bailey et al. in view of Hieda. Specifically, the Examiner states that Hieda teaches in Figure 1 and on Column 3, lines 44-53 a method for stabilizing an image produced by a sensor, comprising: measuring an angular acceleration in two orthogonal axes parallel to an axis of the sensor; twice integrating the angular acceleration in the orthogonal axes; and temporarily offsetting scan timing signals based on the measuring and the integrating. However, Hieda does not teach temporarily offsetting the scan timing signals based on the measuring and the integrating. Hieda utilizes a frame memory and a screen memory, whereby the screen memory is larger than the frame memory. The pick-up image data is stored in the frame memory and a larger image picked up in the wide range by panning or tilting is stored in the screen memory. The frame memory is then combined into the screen memory to produce a larger image with minimal distortions because the screen memory already has the larger image in it. The invention in Hieda is to provide larger printouts with higher quality than prior art methods. On the other hand, as disclosed in claims 36 and 37, Applicant's

invention can temporarily offset scan timing signals based on the measuring and the integrating (claim 36) or it can variably offset read addresses driven to the digital image sensors (claim 37). The Examiner failed to consider the language of claim 37 when it states that the processor is adapted to variably offset read addresses driven to the digital image sensors. Since Hieda does not use buffering, temporarily offsetting the scan timing, to provide a method to stabilize an image produced by a sensor, it does not teach, suggest, nor anticipate Applicant's claims 36 and 37. Therefore, claims 36 and 37 are in allowable form. Additionally, Applicant claims that both image sensors are a digital image device. The Examiner stated in regards to claims 4 and 5 that Bailey et al. teaches this on Column 2, lines 60-68. However, Column 2, lines 60-68 state that the sensor is a solid-state image sensor, which is a front-illuminated, visible-light, frame transfer, charge coupled device. The sensor used in Bailey et al.'s invention is not digital. Support for this sensor not being digital in Bailey et al. is found in the title and in the context that his disclosure provides. The title of his invention is "Television cameras". The Bailey et al. patent was issued in 1987. He was not referring to digital televisions in his patent because they were not available at that time. Also, on Column 5, lines 7-11, the Bailey et al. patent states that the CCD sensors are organized so that their outputs are suitable for use with a conventional TV display system. A conventional TV display system refers to an analog television display unit with fewer lines of resolution than a digital television. For these reasons, it is shown that Bailey et al. did not contemplate the use of digital sensors at the time this patent application was filed. Therefore, Applicant's claims 36 and 37 should be in allowable form. They are not taught, suggested, nor anticipated by the Bailey et al. patent.

Additionally, regarding claims 36 and 37, the Examiner has taken Official Notice of the fact that it is well-known in the art at the time the invention was made that gyroscopic acceleration sensors were used in cameras to detect angular accelerations of the camera. According to MPEP

§2144.03, it states that it would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. Applicant argues that the use of gyroscopic acceleration sensors to detect angular accelerations of the camera is a technical fact in the area of esoteric technology. Thus, documentation is required in this instance. For the reasons listed above and in the immediate preceding paragraph, claims 36 and 37 should be allowed since they are neither taught, suggested, nor anticipated by the cited Bailey et al. patent in view of the Hieda patent.

Regarding claim 17, the Examiner states that this claim is unpatentable over Bailey et al. Specifically, the Examiner states that Bailey et al. teaches the single primary lens system comprising a plurality of lens components. However, Applicant's claim states that a plurality of lenses are movable to each other, while Bailey et al. has only one lens which is movable. Also, the purpose of the movable lens in Bailey et al. is to place the lens in or out of the optical pathway so that a single camera can be used in day/night lighting. The Applicant's purpose for having movable lenses are for zooming capabilities. Also, claim 17 depends upon currently amended independent claim 1 which has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. For these reasons, claim 17 is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 17 should be in acceptable form.

Additionally, regarding claim 17, the Examiner has taken Official Notice of the fact that it is well-known in the art at the time the invention was made that a camera can be made to enable zooming capabilities by moving lens components relative to each other. According to MPEP §2144.03, it states that it would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. Applicant argues that a camera being enabled for zooming capabilities by moving lens components relative to each other is a technical fact in the area of esoteric technology. Thus, documentation is required in this instance. For the reasons listed above, claim 17 should be allowed since it is neither taught, suggested, nor anticipated by the cited Bailey et al. patent.

Regarding claim 22, the Examiner states that this claim is unpatentable over Bailey et al. Specifically, the Examiner states that Bailey et al. teaches that the image captured by the image sensor is output to a display. The Examiner took Official Notice stating that it is well known in the art at the time the invention was made that the display can be contained in a viewfinder for the camera. However, claim 22 depends upon currently amended independent claim 1 which has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. For these reasons, claim 22 is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 22 should be in acceptable form.

Additionally, regarding claim 22, the Examiner has taken Official Notice of the fact that it is well-known in the art at the time the invention was made that the display can be contained in a viewfinder for the camera. According to MPEP §2144.03, it states that it would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. Applicant argues that the display being contained in the viewfinder is a technical fact in the area of esoteric technology. Applicant agrees that it may be common knowledge that a display can be attached to the camera, but not where an output is displayed in the viewfinder of the camera. Thus, documentation is required in this instance. For the reasons listed above and in the immediately preceding paragraph, claim 22 should be allowed since it is neither taught, suggested, nor anticipated by the cited Bailey et al. patent.

Regarding claim 23, the Examiner states that this claim is unpatentable over Bailey et al. The Examiner took Official Notice stating that it is well known in the art at the time the invention was made that cameras can be made to be handheld and portable. However, claim 23 depends upon currently amended independent claim 1 which has been clarified to no longer be taught, suggested, nor anticipated by the Bailey et al. patent. Specifically, the beam-splitting mirror distributes the beam into two different directions with different light intensities. The Bailey et al. patent uses a semi-silvered mirror to split the light; however, the light intensity in both directions are 100%. For these reasons, claim 23 is no longer taught, suggested, nor anticipated by Bailey et al. Thus, claim 23 should be in acceptable form.

Allowable Subject Matter:

The examiner objected to claims 14-16 as being dependent upon a rejected base claim. Claim 14 has now been amended so that it is in independent form and claims 15 and 16 both depend on now acceptable independent claim 14. Claim 14 has not been narrowed or expanded in terms of coverage breadth.

Also, claims 33, 39, and 40 have already been allowed.

"ANNOTATED MARKED-UP DRAWINGS"

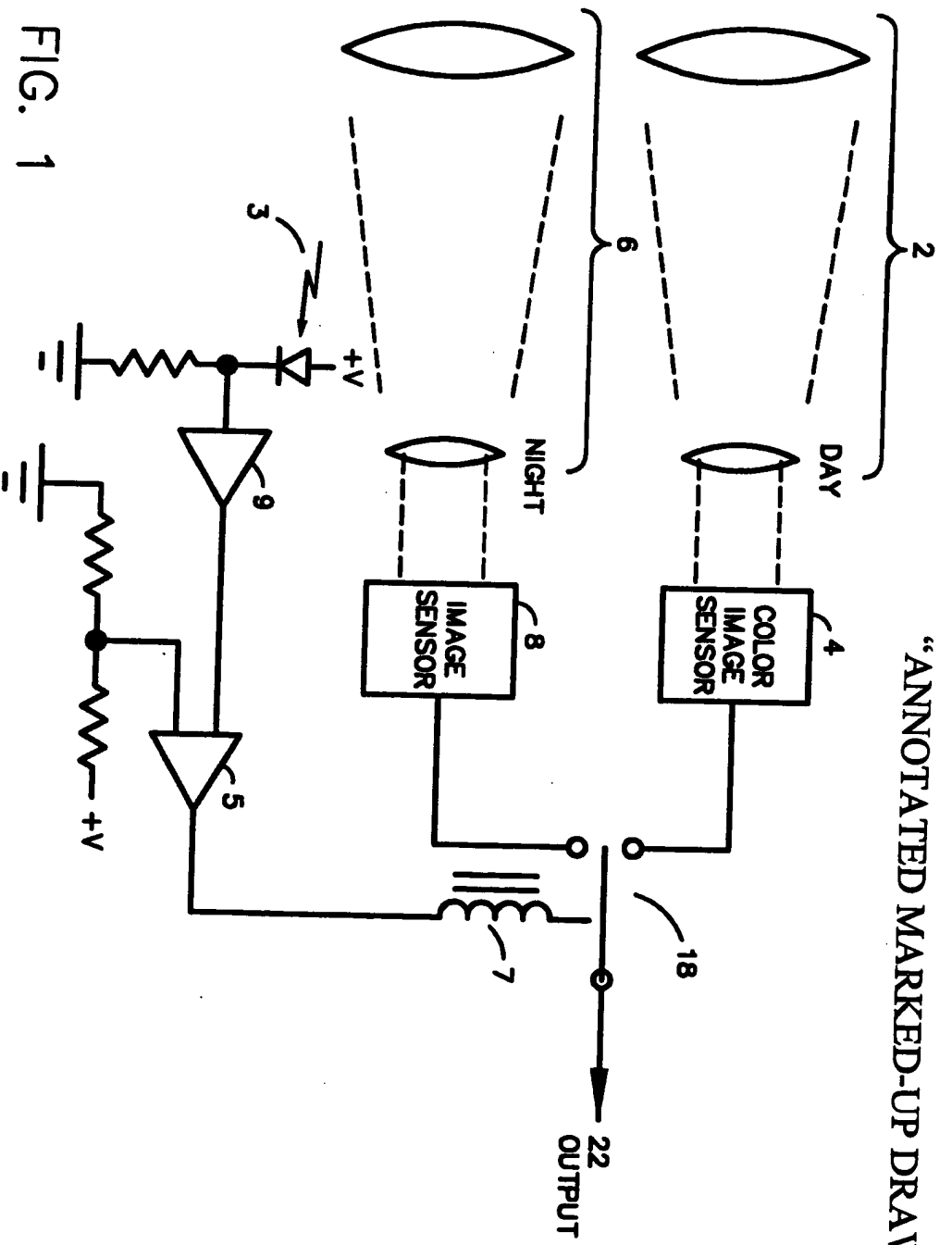


FIG. 1

PRIOR ART